

GEOGRAPHIC AND TEMPORAL VARIATION IN AREA V HUMPBACK WHALE SONG. (ABSTRACT)

Much of the background information on humpback whale song structure comes from the Northern Hemisphere, where populations are localised on mating and calving grounds. Breeding sites for the Southern Hemisphere Area V population of humpback whales have not been identified, however their migration takes them close to the coast, enabling researchers to gain insight into song evolution over

hundreds of kilometres prior to and following visiting the breeding grounds. This paper discusses song collected during the years of 1986, 1991 and 1993 from various locations along the east coast of Australia, examining the influence of latitude and season on song structure during migration.

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ASSOCIATIONS AMONG HUMPBACK WHALES AT THE ARCHIPIELAGO REVILLAGIGEDO, PACIFICO MEXICANO, 1996-2000. (ABSTRACT)

Since 1986 photographic identification studies of the humpback whales (*Megaptera novaeangliae*) wintering among the Archipiélago Revillagigedo have demonstrated a consistently high resighting rate of individuals within and between years (40-50%). In 1996, we began a long-term study of this population taking advantage of these unusual resighting rates to acquire detailed behavioral data on many individuals. We investigated patterns of association among the 631 individuals sighted in 1996-1999 by searching the sighting database for all pairs of whales sighted together in more than one group. Although the vast majority of whales associated only one time in four years, 142 pairs were seen together 2-7 times, and 11 pairs associated in more than one year. Recurrent associations often occurred in small groups (duos, trios, cow/calf with escort), whereas associations in competitive groups seldom recurred. Among the limited sample of known-sex pairs, male-male associations were most prevalent and recurred most frequently. There were

seven male-male pairs that were sighted together both as duos and in competitive groups, two of which were sighted together in multiple years. These observations give additional support to the idea that some males may form coalitions. These analyses will improve as we add more years of behavioral observations, and determine the sex of more individuals by behavior and by genetic analysis of biopsy skin samples, which also will allow us to test the relatedness of associates. We also plan to test the randomness of these associations.

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WHALE-WATCHING IN NEW CALEDONIA: A NEW INDUSTRY. (POSTER) Commercial whale watching cruises began in 1995. At that time 3 tourist operators completed only a few day cruises during the entire season from July to September. Since that time this commercial activity has grown. In 1999, 141 cruises were realised by 19 boats for more than 1,984 persons mainly originating from New Caledonia. The direct economic value has reached 13 million FCFP.

The activity of whale watching is limited to one species: the humpback whale (*Megaptera novaeangliae*) which migrates to New Caledonia in winter to breed. This activity is located in the southern part of the lagoon close to a sheltered bay, overhung by terrestrial observational points, in an area that presents a rich and well preserved natural marine and terrestrial environment favourable to the development of ecotourism.

The success of sighting whales varied from 50-80%. Consequently whalewatching is often associated with other activities, like sailing or scuba-diving, so as to be more attractive to tourists.

Guidelines on 'how to approach the whales' have been published in 1999 by the Province South, but New Caledonia currently lacks any policy or management plan concerning humpback whales within its territorial waters and perhaps more importantly, there is a complete absence of legislation concerning cetaceans in New Caledonia. Issues that need to be addressed are the present uncontrolled development of the whalewatching industry and the impact of human activities on the well-being of the local humpback whale population (e.g. pollution and maritime traffic).

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